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TEACHING STYLES AND COMPETENCY LEVELS OF TECHNO-VOCATIONAL TEACHERS AT RAMON MAGSAYSAY TECHNOLOGICAL UNIVERSITY: A DEVELOPMENT OF COMPETENCY-BASED ASSESSMENT TOOL FOR TECHNO-VOCATIONAL TEACHERS

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ABSTRACT

This study sought to determine the relationship between teaching styles and competency levels of techno-vocational teachers. The hypotheses tested showed that the four teaching style dimensions were equally related to the ratings on the competency levels of techno-vocational teachers. The study used the correlational design and the causal-comparative design of descriptive research since it looked into the relationship and determine the reason for existing differences in teaching styles by competency levels and competency levels by personal characteristics. The supervisors, peers, and students of the 102 teacher respondents were involved as ratters of the teaching effectiveness (competency levels) as defined in the National Budget Circular # 461Teaching Effectiveness Instrument. Teacher respondents were also rated in the Tuckman Teacher Feedback Form to measure their teaching styles. The data gathered through these instruments were tabulated, classified, coded and prepared for statistical analyses through the use of Excel and Ph Stat Software. Based on their FQCE rating, the techno-vocational teachers were rated "very satisfactory" in "teaching for independent learning," followed by "management of learning", "commitment", "knowledge of the subject", in the same order. Significant differences existed in the teaching styles of the more competent and less competent techno-vocational teachers. It was concluded that techno-vocational teachers are very competent in terms of their commitment to service; scholarship and expertise in their chosen fields; ability to organize teaching-learning processes that promote independent learning; and ability to create and manage a conductive learning environment. The more competent techno-vocational teachers who are fewer are generally more dynamic, organized, warm and accepting than the less competent teachers. Based on the findings and conclusions of this study, it is recommended that Techno-vocational Teachers of Ramon Magsaysay Technological University should be provided with abundant opportunities on training, pre-service and inservice emphasizing creativity, dynamisms, organizes demeanor and warmth and acceptance dimensions of teaching styles.

KEYWORDS: *Management of Learning, Organization and Control, Quantitative Analyses of the Data*

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INTRODUCTION

It is important to remember the effect that the teacher has on the learner. Just as the learner has a favored learning style, the teacher has a preferred teaching style. Teaching style has a powerful effect on the dynamics of student's learning experience and the teacher should adapt it or adopt other styles that are appreciated to the purpose of teaching, accordingly (Chambers, 2003).

A teacher shall have developed her teaching style by a mix of what comes naturally to her and from her experiences. There may have been some particular role models whom the teacher has admired who have influenced her style. She might have unconsciously tried to emulate a teacher whom she has found inspiring in the past, or purposely avoided being like a teacher with an off-putting style. She might have a quiet introverted personality and tend towards the all-around flexible and adaptable teacher, or she may be an extrovert and enjoy the big conference teaching style. How she performs as a teacher shall have been influenced by the training and feedback she received when preparing for teacher role. If she is an engineer, the nature of her discipline may have a bearing on her teaching style; doctors may adopt a dominating style and expect to be in charge; nurses and allied professionals might be more learner-centered from the nature of their professional training and everyday practice, and teacher education graduates might be more sociable and conscientious in their teaching style (Gennip and Rens, 2009).

Existing studies on teaching styles are primarily quantitative with a focus on the effectiveness of the style in the teaching-learning process. These studies did not address the relationship between teaching styles and competency levels of teachers. The need further exists to better understand how these two variables correlate with each other.

The importance of examining the relationship between teaching styles and competency levels of teachers is twofold. Theoretically, it is important to prove what implicit requirements a field poses for a techno-vocational teacher. Practically, it is important to separate expectations from actual behavior in order to determine if those expectations are valid and if so, to communicate them to teachers and supervisors.

OBJECTIVES OF THE STUDY

It was the purpose of this study to determine if techno-vocational teachers of Ramon Magsaysay Technological University rated as more competent differ from techno-vocational teachers rated as less competent on the four dimensions of teaching style.

METHODOLOGY

This study used the descriptive research method. Data collected answered research questions and tested hypotheses on the teaching styles of techno-vocational teachers rated as more competent or less competent. Specifically, the study used the survey technique to gather facts on the four dimensions of the teaching styles, namely: creativity, dynamism (dominance and energy), organized demeanor (organization and control) and warmth and acceptance. Further, the content analysis technique was used to gather facts on the competency levels of techno-vocational teachers in terms of commitment, knowledge of the subject, teaching for independent learning, and management of learning.

This study used the correlational design of descriptive research since it looked into the relationship between the teaching styles and competency levels of the techno-vocational teachers. Since the study also attempted to determine the cause, or reason for existing differences in teaching styles by competency levels and competency levels by personal

characteristics, the causal-comparative or ex-post-facto design of descriptive research was used. It attempts to determine reasons or causes for the current states of the phenomena under study (Leedy and Omrod, 2010). No sampling scheme was used since the study involved all the 102 techno-vocational teachers in the following areas: computer and information technology, agricultural technology, fisheries, service, skill trades such as welding and fabrication, food technology, garments, cosmetology, drafting technology, automotive technology, machine shop technology, electronics technology, electrical technology, furniture and cabinet making, civil technology, handicrafts, home technology and others.

The supervisors (one each), peers (ten each), students (thirty each) of the teacher respondents were involved as ratters of the teaching effectiveness (competency levels) as defined in the National Budget Circular # 461(NBC 461) Teaching Effectiveness Instrument. The subjects of the study were described using the following characteristics: gender, age bracket, educational attainment, years of experience in the service, training activities attended, and trade skill certification. Two sets of questionnaire were used as the main tools of the study. They were as follows:

Tuckman Teacher Feedback Form. This instrument was designed by B.W. Tuckman in 1971 used to measure teacher teaching style. It is 28-item semantic differentials where adjective pairs represent approximate opposites.

The Performance Appraisal System of the RMTU was the Qualitative Competency Evaluation (Teaching Effectiveness Instrument) of the National Budget Circular Number 461 used to measure the competencies of the techno-vocational teachers in terms of commitment, knowledge of the subject, teaching for independent learning and management of learning.

No instrument validation was used for the two instruments since the TTFF is a standardized instrument and the Performance Appraisal System of RMTU has been pre-tested several times before it was approved for use by the University.

The researcher reviewed the teaching performance of the techno-vocational teachers during the first semester of the school year 2012-2013 as rated by their respective deans, peers, students, and self. The FQCE rating with a verbal interpretation of outstanding was categorized as more competent while the FQCE rating with a verbal interpretation of very satisfactory was categorized as less competent.

The Tuckman Teacher Feedback Form (TTFF) was then administered to measure the teaching styles of the more competent and the less competent teachers for a period of one hour focusing on the 28 item adjective pairs of the TTFF instrument.

The data gathered were classified, tabulated, and organized through the use of the following statistic formulas: Frequency, Proportion and Percentage, Pearson Product Moment Coefficient of Correlation, z- test for two sample means (Levin and Fox, 1997), Rank (Garcia, 2008) the Mean, Weighted Mean, Standard Deviation (Hinkle, et.al, 1998). The Excel with Ph Stat Software was used in the quantitative analyses of the data.

RESULTS AND DISCUSSIONS

- Based on their FQCE ratings, the techno-vocational teachers scored highest in “teaching for independent learning (4.279), followed by “management of learning” (4.277), “commitment” (4.263), and “knowledge of the subject” (4.247) in the same order. Their overall FQCE rating was (4.270). These ratings were described as “very satisfactory”.

- A total of 30 or 29 (29.0 %) were rated as more competent (outstanding) while 72 or 71 (71.0 %) were rated as less competent (very satisfactory). The difference in proportion was found to be significant at.05 level under df of 100 as indicated by the obtained z-value of 5.881 which was very much higher than the critical value of 1.96.
- As indicated by the obtained mean scores, the more competent (2.85) and the less competent teachers (3.44) believed they often did the positive side of the teaching style dimensions.
- Significant differences existed in the teaching styles of the more competent and less competent techno-vocational teachers as shown by the obtained z-values of 4.624 in dynamism, 9.720 in organized demeanor, and 2.806 in warmth and acceptance. The overall z-value of 4.318 was also significant at.05level. These values were higher than the critical value of 1.96 and their P-values were lower than alpha.05.

Competency Levels

- Gender. The female techno-vocational teachers obtained the higher FQCE rating of 4.356 as compared to the male with 4.205. Both groups, however, got a descriptive rating of "very satisfactory".
- The techno-vocational teachers in the oldest age bracket (61 years and above) reported the highest FQCE rating of 4.590. This was described as outstanding. Following in the same order but described as "very satisfactory" were the teachers in age brackets 41-50 years (4.440), 51-60 years (4.437), 20-30 years (4.158) and 31-40 years (4.069).
- The Techno-vocational teachers with doctorate degree registered the highest FQCE rating of 4.541. Their rating was described as outstanding. Those with a master's degree and master's degree with doctorate units revealed ratings of 4.448 and 4.378 respectively. Holders of B.S degree with master's units showed a rating of 4.261 Holders of B.S degree only yielded the lowest rating at 4.051. Except for the group of doctorate degree holders, the ratings of the other groups were described as "very satisfactory".
- Techno-Vocational teachers with 26-30, 31-35, and 36-40 years of experience in the service registered FQCE ratings 4.605, 4.732 and 4.627 respectively described as outstanding. The rating 4.037 to 4.483 reported by the other groups 1-5, 5-20, 11-15, 16-20 and 21-25 years were described as "very satisfactory"
- Techno-vocational teachers whose training activities were categorized as quite related to their fields of discipline or specialization reported the highest FQCE rating of 4.283, followed closely by the teachers with related training activities at 4.280. Those whose training activities were not at all related claimed the lowest rating of 4.010.
- Techno-vocational teachers with NC2 and No Trade Skill Certification showed identical rating at 4.485. Teachers with NC4 came out with a rating of 4.475. Teachers with **NC1** registered a rating of 4.428. No teacher represented the NC3 group.

Differences in Competency Level

- The z-value of 2.203 obtained in the competency levels of the techno-vocational teachers by gender was significant at alpha.05 level.
- The obtained z-values ranging from 2.002 to 5.948 in many of the comparisons made (20-30 vs. 41-50, 20-30 vs. 51-60, 20-30 vs. 61 and above, 31-40 vs. 41-50, 31-40 vs. 51-60, 31-40 vs. 61 and above, 41-50 vs. 61 and above and 51-60 vs. 61 and above) fell within the.05 level of significance as they were higher than the critical value of 1.96.
- The obtained z-values in B.S. Degree vs. B.S. Degree with Master's Units (2.588), B.S Degree vs. Master's Degree (4.782), B.S. Degree vs. Master's Degree with Doctorate Units (2.449), B.S. Degree vs. Doctorate Degree (4.833), and B.S. Degree with Master's Units vs. Master's Degree (2.040) fell within the.05 level of significance as these values were higher than the critical value of 1.96. Their p-values were lower than alpha.05.
- The obtained z-values of 2.069 to 5.374 in the comparisons between the new and the old ones in terms of their competency levels were higher than the critical value of 1.96 at df 100, hence significant at alpha.05. The p-values of these comparisons were lower than alpha.05.
- The z-value obtained between related vs. not at all related (3.909) in terms of training activities attended was significant at the alpha.05 level as it was found to be very much higher than the critical value of 1.96. The P-value of 9.29E-05wasvery much lower than alpha.05.
- No significant value was registered in the comparisons made on the competency levels of techno-vocational teachers by trade skill certification**.** All the z-values yielded fell below the critical value of 1.96.
- The overall teaching style was significantly correlated with the overall teaching competency as shown by the Pearson r of -0.244. The values were significant at.05 level since they were higher than the critical value of 0.3195 at df100. Generally, the correlations were described as the inverse. The result failed to support the alternative hypothesis that the four teaching style dimensions will be equally related to the ratings on the competency levels of techno-vocational teachers.
- The Proposed Competency- Based Assessment Instrument for Techno-vocational Teachers was based from the analyses of the items covered in NBC 461 Teaching Effectiveness Instrument and TESDA Post Training Evaluation Instrument for Trainers, review of the results of this study, and other readings of the researcher.

Proposed Competency-based Assessment Instrument forTechno-vocational Teachers

Rating Period: _____to_____

Name of Faculty: _____Academic Rank:_____

Evaluator

◯ **Self** ◯ **Peer** ◯ **Student** ◯ **Supervisor**

Instruction: Please evaluate the faculty using the scale below. Encircle your rating.

Table 1

Scale	Descriptive Rating	Qualitative Description
5	Outstanding	The performance consistently exceeds the job requirements. The Faculty is an exceptional role model.
4	Very Satisfactory	The performance meets and often exceeds the job requirements.
3	Satisfactory	The performance meets job requirements.
2	Fair	The performance meets some development to meet job requirements.
1	Poor	The faculty fails to meet job requirements.

Table 2

A. Commitment	Scale				
Patiently demonstrates sensitivity to student's ability to attend and absorb content information.	5	4	3	2	1
Integrates sensitively his/her learning objectives with those of the students in a collaborative process.	5	4	3	2	1
Provides extra attention to students with specific learning needs even beyond official time.	5	4	3	2	1
Aggressively instill positive work values in students (value of time, teamwork, workplace health and safety regulations)	5	4	3	2	1
Conscientiously keeps accurate records of evidence/s of student's competency attainment and prompt submission of the same.	5	4	3	2	1
Total Score					
	Scale				
B. Knowledge of Subject					
Professes mastery of the subject matter	5	4	3	2	1
Draws and share information on the state of the art theory and practice in his/her discipline with a recognition of the use for, and an ability to engage in lifelong learning.	5	4	3	2	1
Imaginatively integrates subject to practical circumstances and learning intents/purposes of students.	5	4	3	2	1
Explains the relevance of present topics to the previous lessons, and relates the subject matter to relevant current issues and/or daily life activities.	5	4	3	2	1
Demonstrates up-to-date knowledge and skills/ or awareness on current trends and issues of the subject.	5	4	3	2	1
Total Score					
	Scale				
Teaching for Independent Learning					
Creatively adopt teaching strategies that allow students to practice using skills they need to acquire.	5	4	3	2	1
Enhances student self-esteem and/ or give due recognition to student's performances/potentials.	5	4	3	2	1
Allows students to create their own course with objectives and realistically defined student-professor rules to encourage them to use higher order thinking skills.	5	4	3	2	1
Allows students to practice critical and independent thinking and make their own decisions.	5	4	3	2	1
Encourages students to learn beyond what is required and help/ guide the students on how to apply the concepts learned.	5	4	3	2	1
Total Score					
Management Learning	**Scale**				
Systematically organize activities for intensive and/or extensive contribution of students in class works (e.g breaks the class into dyads, triads or buzz/ task groups.)	5	4	3	2	1
Assertively assumes roles as facilitator, resource person, coach, trainer, inquisitor, integrator, a referee in drawing students to contribute to knowledge and understanding of the concepts at hands and use the techniques and modern tools necessary for practice.	5	4	3	2	1
Designs and implements assessment method and evaluation system suitable for the student and the competencies.	5	4	3	2	1

Table 2: Contd.,					
Structures/ re-structures learning and teaching-learning context to meet desired needs within realistic constraints.	5	4	3	2	1
Use of appropriate and sufficient instructional materials (audio/ video materials: fieldtrips, film showing, computeraided instruction, actual tools, equipment, supplies and etc.) to reinforces learning processes.	5	4	3	2	1
Total Score					

Table 3

COMPUTATION					
Areas of Evaluation		**Total Score**	**% (Percentage)**	**Equation** *t s/n x %*	**Point**
A.	Commitment		20	____/ 5 x 20%	
B.	Knowledge of Subject		20	____/ 5 x 20%	
C.	Teaching for Independent Learning		30	____/ 5 x 30%	
D.	Management of Learning		30	____/ 5 x 30%	
Total Points _____					

***Legend for the Formula/ Equation:**

ts **=** **Total Score**

n **=** **Number of items**

% **=** **Percentage**

Signature of Evaluator_____

Name of Evaluator_____

Position of Evaluator_____

CONCLUSIONS AND RECOMMENDATIONS

Based on the Findings, the Following Conclusions Were Drawn

- The techno-vocational teachers are experts in their chosen fields and are committed to serving.
- Techno-vocational teachers with outstanding ratings (more competent) are generally fewer than teachers rated with very satisfactory or lower (less competent).
- The more competent techno-vocational teachers are generally more dynamic, organized, warm and accepting than the less competent teachers.
- The techno-vocational teachers in the oldest age bracket, with longer years of experience in the service, with a doctorate degree, with NC 2 or without trade skill certification are outstanding in their competency levels while the other groups have very satisfactory competency levels.
- The female techno-vocational teachers, those in the older age brackets, those with higher educational attainment, those with longer years of experience in the service, and those with quite related and related training activities tend to be very much more satisfactory in their teaching performance.
- The teaching styles of techno-vocational teachers have positive effects or relationships with their teaching effectiveness or competency levels.

Based on the Findings and Conclusions of the Study, the Recommendations below are Forwarded

- Results of this study must be disseminated to the Techno-vocational Teachers to find out where they stand in terms of their competency levels.
- There is a need for techno-vocational teachers to be able to adapt their teaching styles to the learning styles and needs of their students and to the nature of topics they are teaching or circumstances they are in to enable them to engage with their students more effectively and hopefully have more impact in the development of students' knowledge and skills.
- There is a need to strengthen the faculty and staff development program to provide the techno-vocational teachers with abundant opportunities to become more fluent in the subjects they are teaching. The training, pre-service and in-service, should emphasize creativity, dynamism, organized demeanor and warmth and acceptance dimensions of teaching styles. There is a need for techno-vocational teachers to get themselves aware of some factors that significantly influence their competency levels such as sex, age bracket, educational attainment, years of experience in the service, and relatedness of training activities. Knowledge of these factors may help them decide on what direction to take in improving their teaching competencies.
- It is suggested that the newly developed Assessment Tool for Techno-Vocational teachers be used in schools with techno-vocational courses. This could be the first step towards professionalizing the assessment of techno-vocational teacher's competencies.
- More evidence should be gathered to determine what teaching style dimensions are emphasized in the teaching of other subject matters in other fields or discipline.

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